Attachment B: Work Plan for Docket 6290 Phase II Collaborative on Distributed Utility Planning

Summary List of Tasks

Task Group 1. Framework 1

Task 1.1 Work plan process 1

Task 1.2 DU planning process 1

Task 1.3 DU planning horizon and schedule 1

Task 1.4 Guideline for selection of target areas 2

Task 1.5 Process and techniques for development of resource portfolios 2

Task 1.6 Rules and structure for screening portfolios 3

Task 1.6B Tools and methods for screening portfolios 3

Task 1.7 Treatment of differences between portfolios that are not monetized 3

Task 1.8 Guidelines for coordination between utilities 4

Task 1.9 Interaction of Distributed Utility Planning with other utility functions 4

Task Group 2. Regulatory Issues 5

Task 2.1 DUP standard for cost recovery 5

Task 2.2 Cost-sharing mechanisms 6

Task 2.3 DUP in restructured environment 6

Task 2.4 Regulatory options for reducing lead time 6

Task Group 3. Inputs 7

Task 3.1 Update Generation Avoided Cost 7
Task 3.2 Review Treatment of Generation Capacity 7
Task 3.3 Non-targeted T&D Avoided Costs 7
Task 3.4 Risk Adders for Screening Resources 8
Task 3.5 Financial Inputs 8
Task Group 4. Rate Design 9
Task 4.1 Feasibility of Charges for Incremental T&D and distributed resource costs 9
Task 4.2 Charges for Reactive Power 9
Task 4.3 Interruptible Rate Designs for Large Loads 9
Task 4.4 Rate Design for Distributed Generation 9
Task 4.5 Utility Obligation to Serve 10
Task Group 5. DSM Details 10
Task 5.1 Targeted screening tool(s) 10
Task 5.2 Targeting DSM Programs 10
Task 5.3 Estimating DSM Effects 10
Task Group 6. DG Details 11
Task 6.1 Reduction of Regulatory Barriers 11
Task 6.2 Environmental Licensing Issues 11
Task 6.3 Distributed generation characteristics 12
Task 6.4 Environmental Externalities 12
Task 6.5 Technical Interconnection Issues 12
Task 6.6 Ownership, Control and Cost Recovery 12
Task Group 7. Case Studies 13
Task 7.1 Southern Loop 13

Task 7.2 Grand Isle 13
Task 7.3 Williston 13
Task Group 8. Assessment 14
Task 8.1 Effectiveness 14
Task 8.2 Rate Issues 14
Task 8.3 Non-monetized Effects 14

Task Group 1. Framework

Task 1.1 Work Plan process

Priority: High

First steps: Meeting with DPS and utilities

Review priorities of work plan and discuss time frame.

Task 1.2 DU planning process

Priority: High

First steps: DPS draft and resolve ambiguities with utilities.

Expand and clarify "Distributed Integrated-Resource-Planning Guidelines," Attachment A to Phase I Stipulation, Docket 6290, September 2000.

Incorporate *Context of Distributed Utility Planning*, S Parker, 3/28/00.

Task 1.3 DU planning horizon and schedule

Priority: Medium

First steps: DPS get input from utilities and draft

Set horizon and schedule to reflect:

- Lead time for permitting, construction
- Present utility local forecasting capability
- Present utility local supply planning horizon
- Lead time for DSM implementation (with input from EEU).

Task 1.4 Guideline for selection of target areas

Priority: High

First steps: DPS draft and seek utility input
(CVPS to suggest concepts for routine and minor non-load related projects)

Describe process for monitoring load growth, T&D investment plans, and emerging constraints.

Develop standards for selecting areas, including

- Scale of the problem, in MW and dollars.
- Timing.
- Feasibility of distributed-resource solution, including rules for exempting projects required by physical failure, emergency, routine repairs, replacements, and maintenance.
- Uncertainty of need, timing. Managing risk from large load additions.

Develop reporting requirements for area selection.

Task 1.5 Process and techniques for development of resource portfolios

Priority: High

First steps: DPS draft and seek utility input

- Identification of potential resources
- Scoping of resource potential
- Cost-effectiveness screening of resources. Explanation of how screening for DUP differs from screening for non-targeted T&D programs.
- Development of portfolios

Task 1.6 Rules and structure for screening portfolios

Priority: High

First steps: DPS draft and seek utility input
CVPS to draft material on loss reductions

Preliminary and detailed screening.

Societal cost-benefit test.

Treatment of loss reductions.

Use of economic carrying charge in comparisons. Comparison of ECC and PVRR results.

Development of planning tools, methodologies, economic spreadsheets

Task Group 1.6B Tools and methods for screening portfolios

Priority: Medium

First Steps: CVPS to propose list of items to be developed

Development of planning tools, methodologies, economic spreadsheets, if agreement is reached on the conceptual issues above respecting rules and structure for screening portfolios

Task 1.7 Treatment of differences between portfolios that are not monetized

Priority: Medium

First steps: DPS to poll utilities on areas of concern, draft

Risk, uncertainty, flexibility and vulnerability to technological change. DPS to work with utilities on defining useful dimensions of risk.

Power quality, reliability, stability, safety

Non-monetized environmental and aesthetic effects

Guidelines for estimating and dealing with uncertainties in DSM effectiveness.

[Ties to Tasks 3.4, 8.3]

Task 1.8 Guidelines for coordination between utilities

Priority: Medium

First steps: DPS draft

Responsibilities and processes for coordinating between

- Distribution utilities and VELCo
- Utilities that share T&D facilities
    - Roles of T&D owners, utilities with growth, and other utilities served by the facilities.
- Neighboring utilities between whom load can be shifted

[Ties to Regulatory Issues, Task 2.2]

Task 1.9 Interaction of DUP with other utility functions

Priority: Low

First steps: DPS draft
CVPS to offer initial suggestions on rate and financial impacts

Integration of DUP into IRP; deadline for utility IRPs.

Monitoring of rate and financial impacts of distributed resources.

Guidelines on utility role in Act 250 for large load additions in constrained areas; coordination of utility, EEU, and DPS roles; expectations for utility performance.

Coordination of load forecasting with EEU, especially for small customer additions.

Task Group 2. Regulatory Issues

Task 2.1 DUP standard for cost recovery

Priority: Medium

First steps: DPS draft

Standard for demonstrating adequate DUP effort for T&D additions in:

- areas not analyzed in detail
- areas analyzed, but little or no distributed resources selected
- areas with distributed resources selected, but T&D addition required anyway

Standards for recovery of DSM costs, where targeted efforts are not sufficient to defer T&D additions.

Standard for recovery of distributed generation costs. Feasibility of early review and pre-approval of distributed generation options, subject to need. [Ties to task 2.4]

Task 2.2 Cost-sharing mechanisms

Priority: Medium

First steps: GMP and CVPS jointly draft options paper

Rules for sharing costs of T&D upgrades and distributed resources between utilities sharing facilities, and between distribution utilities and VELCo.

Implications of FERC regulation of transmission rates for cost sharing.

Task 2.3 DUP in a restructured environment

Priority: Low

First steps: Participant input on potential issues

Review potential for investments in T&D, DSM, and DG to become unused or useless, or financially stranded.

Consider utilities' ability to recover prudently-incurred costs of T&D, DSM, and DG: current situation, potential problems, potential solutions.

[Ties to Tasks 2.1, 6.6]

Task 2.4 Regulatory options for reducing lead time

Priority: Medium

First steps: Utilities provide suggestions on process
DPS summarizes, reviews, drafts proposal

Preliminary findings for T&D projects.

Preapproval of certain aspects of distributed generation options [Ties to Tasks 2.1, 6.1, 6.2].

Task Group 3. Inputs

Task 3.1 Update generation avoided cost

Priority: Medium

First steps: DPS analysis

Update generation energy and capacity costs to reflect current and projected market energy costs, construction costs.

{Source documents: Section 4 of "The Power to Save" and DPS Vermont Yankee market-price analysis }

Task 3.2 Review treatment of generation capacity

Priority: Low

First steps: VELCo updates participants
DPS drafts allocation formula

Review status of generation capacity requirements in ISO-NE and NEPOOL. Allocate generation costs by season and other factors, to reflect emerging market structure.

Task 3.3 Non-targeted T&D avoided costs

Priority: High (first cut), Medium (final values)

First steps: DPS polls utilities on positions, basis
DPS summarizes, responds, and proposes scope and methods
CVPS propose valuation process for reactive power
Utilities provide existing estimates of costs of reactive power at distribution

Establish methodology for identifying avoidable components and estimating avoided costs for:

- Local T&D below and above voltage of targeted project
    - Services, secondary, line transformers

  - Primary feeders, taps, substations as relevant
- Bulk transmission

  Describe the structure of the transmission market.

  Determine the investments and usage charges that can be avoided by reductions in load growth.

  Estimate market value of excess capacity.
- Offsetting value of the targeted facilities

  Value of reactive power outside the targeted area.

Collect required data and calculate avoided costs.

Interpolate avoided T&D beyond the period of the detailed budget from which targeted additions are identified.

Task 3.4 Risk treatment for screening resources

Priority: Medium

First steps: DPS draft

Determine whether Docket 5270 risk adder for DSM should apply to targeted T&D costs, and if so, how it should be applied.

Determine whether a risk adder is appropriate for some or all types of distributed generation, and if so, under what conditions, for which categories of avoided costs, and at what value.

[Ties to Task 1.6]

Task 3.5 Financial inputs

Priority: Medium

First steps: DPS draft

Determine appropriate carrying charges and discount rates, for IOU, municipal and coop projects.

Task Group 4. Rate Design

Task 4.1 Feasibility of charges for incremental T&D and distributed resource costs

Priority: Medium

First steps: Participants discuss options, barriers
DPS summarizes, drafts

Guidelines for charges. Applicability to new loads by size and timing (before need, requiring additional capacity, after addition).

Task 4.2 Charges for reactive power

Priority: Low

First steps: DPS polls utilities on applicability, design
DPS drafts

Rate design guidelines.

Task 4.3 Interruptible rate designs for large loads

Priority: Low

First steps: Utilities gather contracts, propose form and pricing
DPS summarizes

Review current, proposed and lapsed contracts. Develop generic templates for rate designs suitable for a variety of situations (e.g., normal overload, contingency overload).

Task 4.4 Rate design for distributed generation

Priority: Low

First steps: Participants identify situations for which rates would be necessary.

Buy-back, back-up and supplemental charges. Reflecting load shape of distributed generation in rate design.

Task 4.5 Utility obligation to serve

Priority: Medium

First steps: Participants draft brief language, exchange

Standards for utility obligations if distributed generation unavailable or terminated.

Task Group 5. DSM Details

Task 5.1 Targeted screening tool(s)

Priority: High

First steps: DPS prepare initial tools

Develop tools for screening, prioritizing resources, screening portfolios

Task 5.2 Targeting DSM programs

Priority: High

First steps: EEU draft

Describe methods. Coordination with EEU.

Task 5.3 Estimating DSM effects

Priority: High

First steps: EEU draft

DPS and CVPS discuss Southern Loop analysis, effect of CVPS Rates 3 and 11 on DSM peak reductions, bring to collaborative as case studies

GMP to present a case study of how peak savings reductions were derived for Williston study.

Description of methods and default assumptions. Data-gathering procedures and requirement. Coordination with EEU.

Methods and default values for adjusting DSM potential to reflect load management.

Task Group 6. DG Details

Task 6.1 Reduction of regulatory barriers

Priority: Medium

First steps: Set up working group

Consider feasibility of simplified approval process for Sec. 248 permitting.

Consider feasibility of simplified cost-recovery approval process on distributed generation.

Design processes, as feasible.

[Ties to Regulatory]

Task 6.2 Environmental licensing issues

Priority: Medium

First steps: Set up working group (DPS, ANR, utilities with in-state fossil generation, DG developers?)

Summarize current rules and processes applicable to distributed generation.

Determine applicability to distributed generation, by technology and scale. [Ties to Task 6.3]

Summarize schedule constraints due to environmental licensing.

Investigate feasibility of programmatic approvals for distributed generation installations.

Consider feasibility of recognizing regional offsets in licensing.

Task 6.3 Distributed generation characteristics

Priority: High

First steps: Participants submit best data to DPS
DPS prepares first summary

Assemble default estimates of capital cost, O&M, operating life, heat rate, emission rates and other inputs.

Annual update.

Task 6.4 Environmental externalities

Priority: Medium

First steps: DPS drafts

Extrapolate the values for generation externalities in the avoided-cost settlement to set values by pollutant and value per kWh for various distributed-generation technologies.

[Ties to Task 6.3]

Task 6.5 Technical interconnection issues

Priority: High

First steps: DPS, large utilities monitor and summarize standards

Safety, system operation. Case-by-case in short term, EPRI interconnection group in longer term.

{Supporting documents: Existing standards in Vermont and other jurisdictions, including NY DPS "Standardizing Interconnection Requirements" dated 6/23/00.}

Task 6.6 Ownership, control and cost recovery

Priority: Medium

First steps: Discussion of participant concerns; DPS draft

Contractual & institutional arrangements, utility and customer ownership.

ACE for customer-side distributed generation. [Ties to Task 2.1]

Task Group 7. Case Studies

Task 7.1 Southern Loop

Priority: Low

First steps: DPS comments on paper, then group discussion

[Ties to Estimating DSM Effects]

Task 7.2 Grand Isle

Priority: Medium

First steps: CU walks parties through update, as it happens

Task 7.3 Williston

Priority: High

First steps: GMP present current situation, post-AIPM analysis

Task Group 8. Assessment

Task 8.1 Effectiveness

Priority: Low (follows Case Studies)

First steps: Review of Case Studies

Effectiveness of selection and implementation strategies in initial Guidelines for avoiding or deferring T&D upgrades.

[Ties to Case Studies]

Task 8.2 Rate issues

Priority: Low (follows Case Studies and implementation)

First steps: Utilities implementing DUP projects file reports

Estimating effect of DUP implementation on rates and bills.

[Ties to Case Studies]

Task 8.3 Non-monetized effects

Priority: Medium (in parallel with Case Studies)

First steps: DPS and/or Case Study utilities write up observations
Meeting

Estimates of potential environmental effects of DSM, distributed generation, and T&D for resources proposed in the Case Studies that are not presently considered in the societal test.

Development of mechanisms for reflecting in decision-making, if necessary.

[Ties to Case Studies, Task 1.6]